

Name: Heidi Nunley

Grade Level/Subject: 8th grade / math

Topic: Using proportions to solve problems and graphing data

Objectives (P.A.S.S.): Standard 2.1b - Use basic operations on rational numbers to solve problems in real-life situations.

Standard 2.1c - Apply ratios and proportions to solve problems.

Standard 5.1 - Select and apply appropriate formats to display collected data.

Introduction: The students will use a variety of snack foods to determine what percent of their daily caloric intake one serving of the snack food would provide. They will be asked to graph their data on a graph appropriate to display the information gathered.

Materials needed: A minimum of 3 different snack foods per student/group (ex. snack size bag of chips, Gold Fish crackers, cookies, candy bars, granola bars, etc.); graph paper; paper; pencil; calculator (if permitted).

Instructional process: The average junior high girl needs approximately 1,200 calories per day to maintain an active lifestyle and an appropriate body mass index (BMI). But, the average junior high boy needs approximately 1,500 calories to accomplish the same thing. You have three different snack foods in front of you. Unse the nutrition facts on the back of the package to determine what percent of your daily caloric intake one serving of the snack would be. (Notice that not all packages are one serving and the percents printed on the package may not correspond with your daily caloric needs.)

Questions for students:

1. What are the 3 snack foods you will be analyzing today?
2. How many servings are in one package of each?
3. How many calories per day are the percent daily values based upon in each package?
4. Using proportions, find what percent of your daily calorie values each snack food would be.
5. After you find your percent daily values, find the percent daily values of someone of the opposite gender in junior high using the same snack foods.

Closure: When you have answered all of the student questions, graph your data using the graph paper provided and determine which is the best choice for you. (There is no wrong answer as long as the student can justify their answer.)

Assessment: The assessment will be the graph and the students intrepretation of the graph and their choice of snack food.

Modifications/Accommodations: Gifted students could expound on the following questions after they complete the graph and intrepretation.

1. Why did you choose this type of graph and why didn't you choose one of the others?
2. If you wanted to lose or gain weight would that affect your choice of snack food? Why?
3. Was one of your snack foods harder to work with than the others? Why?

ELL students could be grouped with bi-lingual students to help with reading and interpreting the nutrition facts on the packages.

Reflection: N/A (I have been on maternity leave since August 17 and have not taught any lessons this school year.)